



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/758,817	01/11/2001	Robert E. Balfour	P/ 3588 - 2	9253
2352	7590	08/09/2005	EXAMINER	
OSTROLENK FABER GERB & SOFFEN 1180 AVENUE OF THE AMERICAS NEW YORK, NY 100368403			GOOD JOHNSON, MOTILEWA	
			ART UNIT	PAPER NUMBER
			2677	

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/758,817

Applicant(s)

BALFOUR, ROBERT E.

Examiner

Motilewa A. Good-Johnson

Art Unit

2677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-31 is/are allowed.
- 6) ☒ Claim(s) 32-36 is/are rejected.
- 7) ☒ Claim(s) 37-39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date 08/02/05.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 32-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simpson, U.S. Patent Number 5,268,998, in view of Kunimatsu, U.S. Patent Number 6,587,110.

Regarding claim 32, Simpson discloses a method for generating a temporally and spatially manipulatable 4D portal from one or more information databases, comprising: identifying a representative set of 4D object types from the one or more information databases (14d, object storage); defining spatial manifestations for each 4D object type (col. 12, line 67 – col. 13, line 7, all the characteristics of the alternative geometry and the object and the disposition information, i.e. translation and rotation, is within the geometry of space, which Examiner interprets as spatial manifestations); creating a 3D visual model for each 4D object type (col. 31, line 64 - col. 32, line 2);

However, it is noted that Simpson fails to disclose organizing the 4D object types and spatial manifestations into a set of 4D object definitions and creating one or more 4D objects in a 3D scene based on the 4D object definitions.

Kunimatsu discloses image processing in which objects are stored in a spaces composed of hierarchies and having a four dimensional space and further discloses displaying the processed image information, col. 2, line 15- col. 3, line 12. Kunimatsu further discloses organizing the 4D object types and spatial manifestations into a set of 4D object definitions (col. 10, lines 12-15) and creating one or more 4D objects in a 3D scene based on the 4D object definitions (col. 26, lines 25-55)

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in the imaging objects in 4-D as disclosed by Simpson to include the spatial definitions and object definitions, as disclosed by Kunimatsu, to reduce

Art Unit: 2677

processing time for rendering objects in a scene and to further achieve a higher speed and efficiency.

Regarding claim 33, Kunimatsu discloses organizing the 4D object types into a 4D object spatial hierarchy (col. 15, lines 17-36)

Regarding claim 34, identifying 4D object attributes from the one or more information databases (14d, object storage); and identifying 4D object actions from the one or more information databases (14e, disposition storage, which Examiner interprets as an object action) wherein the spatial manifestations are defined for the 4D object attributes and the 4D object action (col. 12, line 67 – col. 13, line 7, all the characteristics of the alternative geometry and the object and the disposition information , i.e. translation and rotation, is within the geometry of space, which Examiner interprets as spatial manifestations)

Kunimatsu discloses wherein the set of 4D object definitions are organized according to the 4D object types, the 4D object spatial hierarchy, the 4D object attributes, the 4D object actions and the spatial manifestations (figure 10)

Regarding claim 35, Kunimatsu discloses creating guideway definitions based on the spatial manifestations (col. 9, lines 57-61)

Regarding claim 36, Kunimatsu discloses generating a 4D object audit trail from the one or more information databases (col. 17, line 34- col. 18, line 17, an object cache

Art Unit: 2677

for retrieving the object information stored in the memory, which Examiner interprets as an object audit trail)

Allowable Subject Matter

3. Claims 1-31 are allowed.
4. Claims 37-39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. The following is a statement of reasons for the indication of allowable subject matter: The prior art cited fails to render obvious a portal database for 4D objects.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Motilewa A. Good-Johnson whose telephone number is (571) 272-7658. The examiner can normally be reached on Monday, Tuesday and Thursday 9:00 AM - 6:30 PM.

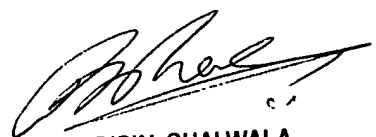
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2677

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Motilewa A. Good-Johnson
Examiner
Art Unit 2677

mgj



BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600